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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/862,983	05/22/2001	Jonathan Abela	00-GR2-032	7519

23334 7590 10/02/2002

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EXAMINER

DAVIS, ROBERT B

ART UNIT	PAPER NUMBER
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1722

7

DATE MAILED: 10/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/862,983

Applicant(s)

ABELA ET AL.

Examiner

Robert B. Davis

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1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-13 is/are rejected.
- 7) ☒ Claim(s) 7 and 8 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

On line 12 of page 1 of the specification, the serial number of the related case is blank.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

3. Claims 1-6 and 9-13 rejected under 35 U.S.C. 102(b) as being anticipated by Saeki et al (4,946,633: figures 1A, 1C, 3, 4, 6, 7, 9, 10, 12-16; column 4, lines 7-41; column 5, lines 26-34 and column 6, lines 34-42).

Saeki et al teach a mold for encapsulating semiconductors comprising: pots (2) having runners (3), which connect the pots to the mold cavities (5). The reference teaches three alternatives that read on the blind channel of applicant. The first example is runner (10), which connects pots (2) as shown in figure 1. The second example is

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runner (10), which connects runners (3) as shown in figure 10. The third example is dummy cavity (26) connected to the molding cavity (9) as shown in figure 13. The reference clearly teaches the steps of placing lead frame (11) into the injection mold, injecting the encapsulation material as illustrated in figure 3 and hardening of the material.

4. Claims 1, 2, 6, 9, 10 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Matumoto et al (5,052,907: figures 5, 6, and 8A-8C and column 4, lines 8-20) or Japanese reference (62-221523: figure 1 and abstract).

Matumoto et al teach a molding assembly having a pot (13) having runners (15A-15D) connecting the pot to cavities (12) which has a cavity (21) attached to the runners to trap plastic containing voids.

The Japanese reference teaches a blind runner attached to runner (2), which feeds runners (3, 4) to capture an amount of resin, which contains voids. The reference also clearly shows a pot (1) and molding cavities (5).

5. Claims 1, 2, 6, 9, 10, 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Briar et al (6,355,199 B1: figures 3 and 4; column 1, lines 53-67; column 2, lines 32-47 and column 3, lines 24-34).

Briar et al teach the use of stiffener cavities (17, 18) attached to runners (20, 16) such that material injected from pot (21) fills the stiffener cavities (17, 18) and the molding cavities (11) containing circuit elements (12).

Allowable Subject Matter

6. Claims 7 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: None of the prior art teach or suggest a mold according to claim 1 having an insert having one face that partly constitutes the wall of the injection cavity, wherein the complementary channel extends around the insert so as to form an annular space communicating with the injection cavity. The closest prior art (Woerner et al 4,867,663) discloses a seal (11) to prevent flash around insert (7), but fails to disclose or suggest the invention as claimed in claim 7.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The remaining references show various injection runner systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert B. Davis whose telephone number is 703-308-2625. The examiner can normally be reached on Monday-Thursday 9:00-6:30 and on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jan H. Silbaugh can be reached on 703-308-3829. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Robert B. Davis
Primary Examiner
Art Unit 1722

9/27/02

September 27, 2002